AMENDMENTS

This listing of claims replaces all prior versions and listings of claims:

In the claims:

Claim 1 (withdrawn): A monoclonal anti-idiotype antibody 11D10 produced by hybridoma cell line ATCC No. 12020 or progeny thereof.

Claim 2 (withdrawn): The antibody of claim 1, further comprising a label capable of producing a detectable signal.

Claim 3 (withdrawn): A hybridoma cell line designated ATCC No. 12020 and progeny thereof.

Claim 4 (withdrawn): A purified antibody having identifying characteristics identical to antibody produced by a hybridoma cell line according to claim 3.

Claim 5 (withdrawn): A hybridoma having all the identifying characteristics of a cell of the hybridoma cell line according to claim 3.

Claim 6 (previously presented): An isolated polynucleotide comprising a sequence encoding a polypeptide that upon administration to a mammal is capable of eliciting an anti-HMFG immunological response in said mammal, wherein the polypeptide comprises an immunoglobulin variable region containing the three light chain complementarity determining regions (CDRs) of antibody 11D10 and an immunoglobulin variable region containing the three heavy chain CDRs of antibody 11D10, wherein antibody 11D10 is produced by the hybridoma deposited under ATCC Accession No. HB-12020.

Claims 7-10 (canceled)

Claim 11 (previously presented): A polynucleotide according to claim 6, wherein the encoding sequences for the variable region containing the three light chain CDRs and the encoding sequence for the variable region containing the three heavy chain CDRs are contained in the variable region encoding sequence in SEQ ID NO:1 and SEQ ID NO:3, respectively.

Claims 12-13 (canceled)

Claim 14 (previously presented): An isolated polynucleotide comprising a region of at least about 100 contiguous nucleotides of the sequence contained in SEQ ID NO:1.

Claim 15 (previously presented): An isolated polynucleotide comprising a region of at least about 80 contiguous nucleotides of the sequence contained in SEQ ID NO:3.

Claim 16 (previously presented): A cloning vector comprising the polynucleotide according to claim 6.

Claim 17 (previously presented): An expression vector comprising the polynucleotide according to claim 6.

Claim 18 (original): The expression vector of claim 17, wherein the expression vector is vaccinia.

Claim 19 (currently amended): An isolated host cell comprising the polynucleotide of claim 6.

Claim 20 (withdrawn): A polypeptide having immunological activity of monoclonal anti-idiotype antibody 11D10, wherein the polypeptide comprises at least 5 contiguous amino acids from a variable region of 11D10.

Claim 21 (withdrawn): A polypeptide according to claim 20, wherein the variable region is from a light chain.

Claim 22 (withdrawn): A polypeptide according to claim 20, wherein the variable region is from a heavy chain.

Claim 23 (withdrawn): The polypeptide of claim 20, wherein the 5 contiguous amino acids are depicted within SEQ ID NO:2.

Claim 24 (withdrawn): The polypeptide of claim 20, wherein the 5 contiguous amino acids area depicted within SEQ ID NO:4.

Claim 25 (withdrawn): The polypeptide of claim 20, wherein the 5 contiguous amino acids are from a complementarity determining region.

Claim 26 (withdrawn): The polypeptide of claim 20, wherein the polypeptide contains a region that is homologous to human milk fat globule.

Claim 27 (withdrawn): A fusion polypeptide comprising the polypeptide of claim 20.

Claim 28 (withdrawn): The fusion polypeptide of claim 27 further comprising a cytokine.

Claim 29 (withdrawn): The fusion polypeptide of claim 28, wherein the cytokine is GM-CSF.

Claim 30 (withdrawn): The fusion polypeptide of claim 28, wherein the cytokine is IL-2.

Claim 31 (withdrawn): The fusion polypeptide of claim 27, comprising at least 10 contiguous amino acids of light chain variable region depicted within SEQ ID NO:2 and at least 10 contiguous amino acids of heavy chain variable region depicted within SEQ ID NO:4.

Claim 32 (withdrawn): The fusion polypeptide of claim 31, wherein the amino acids of SEQ ID NO:2 and the amino acids of SEQ ID NO:4 are joined by a linker polypeptide of about 5 to 20 amino acids.

Claim 33 (withdrawn): The fusion polypeptide of claim 27, comprising a light chain variable region and a heavy chain variable region of monoclonal antibody 11D10.

Claim 34 (withdrawn): The fusion polypeptide of claim 27 further comprising a heterologous immunoglobulin constant region.

Claim 35 (withdrawn): A humanized antibody comprising the polypeptide of claim 20.

Claim 36 (withdrawn): A polymeric 11D10 polypeptide comprising a plurality of the polypeptide of claim 20.

Claim 37 (withdrawn): A pharmaceutical composition comprising an effective amount of monoclonal anti-idiotype antibody 11D10 of claim 1 and a pharmaceutically acceptable excipient.

Claim 38 (original): A composition comprising the polynucleotide of claim 6 and a pharmaceutically acceptable excipient.

Claim 39 (withdrawn): A pharmaceutical composition comprising an effective amount of the polypeptide of claim 20 and a pharmaceutically acceptable excipient.

Claim 40 (withdrawn): A vaccine comprising an effective amount of monoclonal anti-idiotype antibody 11D10 of claim 1 and a pharmaceutically acceptable excipient.

Claim 41 (canceled)

Claim 42 (withdrawn): A vaccine comprising an effective amount of the polypeptide of claim 20 and a pharmaceutically acceptable excipient.

Claim 43 (withdrawn): The vaccine of claim 37, further comprising an adjuvant.

Claim 44 (canceled)

Claim 45 (canceled)

Claim 46 (withdrawn): A method of eliciting an immune response in an individual with advanced human milk fat globule associated disease comprising the step of administering an effective amount of monoclonal anti-idiotype antibody 11D10 of claim 1 to the individual.

Claim 47 (withdrawn): A method of eliciting an immune response in an individual with advanced human milk fat globule associated disease comprising the step of administering an effective amount of the vaccine of claim 43 to the individual.

Claim 48 (withdrawn): The method of claim 46, wherein the advanced human milk fat globule associated disease is breast cancer.

Claim 49 (withdrawn): A method for removing a labeled anti-human milk fat globule (HMFG) antibody from an individual who has received a labeled anti-HMFG antibody, comprising administering monoclonal antibody 11D10 of claim 1 to the individual.

Claim 50 (withdrawn): A method for detecting the presence of an anti-human milk fat globule (HMFG) antibody bound to a tumor cell comprising the steps of contacting the tumor cell with monoclonal antibody 11D10 of claim 1 for a sufficient time to allow binding to the anti-HMFG antibody and detecting the presence of any 11D10 which is bound to the anti-HMFG antibody.

Claim 51 (withdrawn): A method of detecting an anti-human milk fat globule immunological response in an individual comprising the steps of (a) contacting a biological sample from the individual with the monoclonal antibody 11D10 of claim 1 under conditions that permit formation of a stable complex between monoclonal antibody 11D10 and an antibody that binds to 11D10; and (b) detecting any stable complexes formed.

Claim 52 (withdrawn): A method of detecting in a sample an antibody that binds to monoclonal antibody 11D10 comprising the steps of: (a) contacting antibody from a sample obtained from the individual with the polypeptide of claim 20 under conditions that permit the

formation of a stable antigen-antibody complex; and (b) detecting the stable complex formed in step (a), if any.

Claim 53 (withdrawn): A method of palliating human milk fat globule associated disease in an individual having advanced human milk fat globule disease comprising administering an effective amount of monoclonal antibody 11D10 of claim 1 to the individual.

Claim 54 (withdrawn): A kit for detection or quantitation of an anti-human milk fat globule antibody comprising monoclonal anti-idiotype antibody 11D10 of claim in suitable packaging.

Claim 55 (withdrawn): The kit of claim 54, wherein the 11D10 comprises a detectable label.

Claim 56 (withdrawn): A kit for detection or quantitation of an anti-human milk fat globule antibody in a biological sample comprising the 11D10 polypeptide of claim 20 in suitable packaging.

Claim 57 (previously presented): A kit for detection or quantitation of a polynucleotide which comprises a sequence encoding a variable region of antibody 11D10 or a portion thereof, said kit comprising the polynucleotide of claim 14 in packaging.

Claim 58 (previously presented): A kit for detection or quantitation of a polynucleotide which comprises a sequence encoding a variable region of antibody 11D10 or a portion thereof, said kit comprising the polynucleotide of claim 15 in packaging.

Claim 59 (previously presented): The polynucleotide of claim 6, wherein the polypeptide has the light and heavy chain variable region sequences contained in SEQ ID NO:2 and SEQ ID NO:4, respectively.

Claim 60 (canceled)

Claim 61 (canceled)

Claim 62 (previously presented): A polynucleotide according to claim 6, wherein the anti-HMFG immunological response comprises production of anti-HMFG antibody by the mammal.

Claim 63 (previously presented): A polynucleotide according to claim 6, wherein the anti-HMFG immunological response comprises production of anti-HMFG reactive T cells by the mammal.

Claim 64 (canceled)

Claim 65 (previously presented): A polynucleotide according to claim 6, wherein the variable regions are joined by a linker polypeptide of about 5 to 20 amino acids.

Claim 66 (canceled)

Claim 67 (withdrawn): The fusion polypeptide of claim 34, wherein the immunoglobulin constant region is human.

Claim 68 (withdrawn): The immunogenic composition of claim 42, further comprising an adjuvant.

Claim 69 (currently amended): A method of preparing a heavy chain variable region of antibody 11D10 comprising expressing the polynucleotide of claim 73 in an isolated host cell.

Claim 70 (previously presented): A kit for eliciting an anti-HMFG immunological response in a mammal comprising the polynucleotide of claim 6 in packaging.

Claim 71 (previously presented): A polynucleotide according to claim 6, wherein the light chain CDRs and the heavy chain CDRs are contained in SEQ ID NO:2 and SEQ ID NO:4, respectively.

Claim 72 (previously presented): An isolated polynucleotide encoding an immunoglobulin variable region containing the three light chain CDRs in SEQ ID NO:2.

Claim 73 (previously presented): An isolated polynucleotide encoding an immunoglobulin variable region containing the three heavy chain CDRs in SEQ ID NO:4.

Claim 74 (previously presented): A polynucleotide according to claim 72, wherein the variable region is contained in SEQ ID NO:2.

Claim 75 (previously presented): A polynucleotide according to claim 73, wherein the variable region is contained in SEQ ID NO:4.

Claim 76 (currently amended): A composition comprising the polynucleotide of any of claims [[64,]] 65, 72, 73, 74, or 75 and a pharmaceutically acceptable excipient.

Claim 77 (currently amended): An isolated host cell comprising the polynucleotide of any of claims 14, 15, 59, 71, 72, 73, 74, or 75, wherein the polynucleotide is a recombinant polynucleotide.

Claim 78 (currently amended): A polynucleotide according to any of claims 6-12, 14, 15, 59, [[62-65]] 62-63, 65, or 71-75, wherein the polynucleotide is a recombinant polynucleotide.

Claim 79 (currently amended): A composition according to claim ~~any of claims~~ 38[[, 41, 44, 45, or 66]], wherein the polynucleotide is a recombinant polynucleotide.

Claim 80 (previously presented): A kit according to any of claims 57, 58, or 70, wherein the polynucleotide is a recombinant polynucleotide.

Claim 81 (previously presented): A composition according to claim 76, wherein the polynucleotide is a recombinant polynucleotide.

Claim 82 (previously presented): The polynucleotide of claim 14, comprising a region of at least about 150 contiguous nucleotides of the sequence contained in SEQ ID NO:1.

Claim 83 (previously presented): The polynucleotide of claim 14, comprising a region of at least about 200 contiguous nucleotides of the sequence contained in SEQ ID NO:1.

Claim 84 (previously presented): The polynucleotide of claim 14, comprising a region of at least about 300 contiguous nucleotides of the sequence contained in SEQ ID NO:1.

Claim 85 (previously presented): The polynucleotide of claim 15, comprising a region of at least about 100 contiguous nucleotides of the sequence contained in SEQ ID NO:3.

Claim 86 (previously presented): The polynucleotide of claim 15, comprising a region of at least about 150 contiguous nucleotides of the sequence contained in SEQ ID NO:3.

Claim 87 (previously presented): The polynucleotide of claim 15, comprising a region of at least about 200 contiguous nucleotides of the sequence contained in SEQ ID NO:3.

Claim 88 (previously presented): The polynucleotide of claim 15, comprising a region of at least about 300 contiguous nucleotides of the sequence contained in SEQ ID NO:3.

Claim 89 (currently amended): A method of preparing a light chain variable region of antibody 11D10 comprising expressing the polynucleotide of claim 72 in an isolated host cell.

Claim 90 (previously presented): An isolated polynucleotide comprising a sequence encoding a polypeptide, wherein the polypeptide comprises an immunoglobulin variable region containing the three light chain complementarity determining regions (CDRs) of antibody 11D10 or an immunoglobulin variable region containing the three heavy chain CDRs of antibody 11D10, wherein antibody 11D10 is produced by the hybridoma deposited under ATCC Accession No. HB-12020.

Claim 91 (previously presented): A polynucleotide according to claim 90, wherein the polypeptide comprises an immunoglobulin variable region containing the three light chain CDRs of antibody 11D10.

Claim 92 (previously presented): A polynucleotide according to claim 90, wherein the polypeptide comprises an immunoglobulin variable region containing the three heavy chain CDRs of antibody 11D10.

Claim 93 (previously presented): A polynucleotide according to claim 90, wherein the immunoglobulin light chain variable region is contained in SEQ ID NO:2.

Claim 94 (previously presented): A polynucleotide according to claim 90, wherein the immunoglobulin heavy chain variable region is contained in SEQ ID NO:4.

Claim 95 (previously presented): The polynucleotide of claim 90, wherein the polypeptide has the light and heavy chain variable region sequences contained in SEQ ID NO:2 and SEQ ID NO:4, respectively.

Claim 96 (previously presented): A polynucleotide according to claim 90, wherein the encoding sequence is contained in the variable region encoding sequence in SEQ ID NO:1.

Claim 97 (previously presented): A polynucleotide according to claim 90, wherein the encoding sequence is contained in SEQ ID NO:3.

Claim 98 (previously presented): A composition comprising the polynucleotide of claim 90 and a pharmaceutically acceptable excipient.

Claim 99 (canceled)